

Simultaneous Equations

ELIMINATION METHOD

Solve each pair of equations using the elimination method.

1

$$\begin{aligned}x + y &= 6 \\x - y &= 2\end{aligned}$$

2

$$\begin{aligned}3x + 2y &= 8 \\2x + 2y &= 6\end{aligned}$$

3

$$\begin{aligned}x + 3y &= 7 \\9x + 3y &= 15\end{aligned}$$

4

$$\begin{aligned}4x - 3y &= 13 \\2x + 5y &= 11\end{aligned}$$

5

$$\begin{aligned}5x - y &= 12 \\7x - 3y &= 10\end{aligned}$$

6

$$\begin{aligned}x - 6y &= 11 \\3x - 2y &= 1\end{aligned}$$

7

$$125^x / 25 = 5^{(2x-y)} \quad \text{and} \quad 3^{(2x-5y)} = 81$$

8

$$2x + 3y - 1 = 3x + y + 7 = x + 2y$$

9

$$\begin{aligned}2x + y &= 7 \\x - y &= 2\end{aligned}$$

10

$$\begin{aligned}4x - y &= 10 \\3x + y &= 11\end{aligned}$$

ANSWERS

1. $x = 4, y = 2$

2. $x = 2, y = 1$

3. $x = 1, y = 2$

4. $x = \frac{49}{13}, y = \frac{9}{13}$

5. $x = \frac{13}{4}, y = \frac{17}{4}$

6. $x = -1, y = -2$

7. $x = 2, y = 0$

8. $x = -2, y = 3$

9. $x = 3, y = 1$

10. $x = 3, y = 2$